Section 7. North Atlantic ICAO Region

8-7-1. APPLICATION

Provide air traffic control services in the North Atlantic ICAO Region with the procedures and minima contained in this section except when noted otherwise.

8-7-2. VERTICAL SEPARATION

Provide vertical separation in accordance with Chapter 4, IFR, Section 5, Altitude Assignment and Verification.

8-7-3. LONGITUDINAL SEPARATION

Provide longitudinal separation between aircraft as follows:

a. Supersonic flight:

1. Provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique:

(a) *10 minutes; or*

(b) *10 minutes* when one or both aircraft has been cleared to commence the deceleration/descent phase of supersonic flight and the preceding aircraft is maintaining a Mach number which is the same as or greater than that of the following aircraft.

2. *15 minutes* between all other aircraft.

b. Operations wholly or partly in Minimum Navigation Performance Specification (MNPS) Airspace *(subsonic flight):*

1. *10 minutes*, provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique; and

(a) Where tracks diverge from the common point:

(1) At least *10 minutes* longitudinal separation exists at the point where the tracks diverge; and

(2) At least *5 minutes* longitudinal separation will exist where 60 NM lateral separation is achieved; and

NOTE-
When the preceding aircraft is maintaining a greater Mach number than the following aircraft in accordance with this subparagraph, and the aircraft will follow continuously diverging tracks so that 60 NM lateral separation will be achieved by the next significant point, the requirement to have at least 5 minutes longitudinal separation where 60 NM lateral separation is achieved, may be disregarded.

(3) At least 60 NM lateral separation will be achieved at or before the next significant point (normally within ten degrees of longitude along track(s)) or, if not, within 90 minutes of the time the second aircraft passes the common point or is within 600 NM of the common point, whichever is estimated to occur first.

(b) Between *9 and 5 minutes*, provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique; and

(1) It is possible to ensure, by radar or other approved means, that the required time interval exists and will exist at the common point from which they either follow the same track or continuously diverging tracks; and

(2) The preceding aircraft is maintaining a greater Mach number than the following aircraft in accordance with the following:

[a] *9 minutes*, if the preceding aircraft is Mach 0.02 faster than the following aircraft;

[b] *8 minutes*, if the preceding aircraft is Mach 0.03 faster than the following aircraft;

[c] *7 minutes*, if the preceding aircraft is Mach 0.04 faster than the following aircraft;

[d] *6 minutes*, if the preceding aircraft is Mach 0.05 faster than the following aircraft;

[e] *5 minutes*, if the preceding aircraft is Mach 0.06 faster than the following aircraft.

2. *15 minutes* between turbojet aircraft not covered by para 8-7-3, Longitudinal Separation.

c. Operations in the West Atlantic Route System *(WATRS) (subsonic flight)*:

NOTE-
The WATRS area is defined as beginning at a point 27°00'N/77°00'W direct to 20°00'N/67°00'W direct to 18°00'N/62°00'W direct to 18°00'N/60°00'W direct to 38°30'N/60°00'W direct to 38°30'N/69°15'W, thence counterclockwise along the New York Oceanic CTA/FIR boundary to the Miami Oceanic CTA/FIR boundary, thence southbound along the Miami Oceanic CTA/FIR boundary to the point of beginning.

1. Between all aircraft *15 minutes;* or

2. Aircraft operating at or above FL 280 within the *WATRS* area or west of 60° West when in transit to or from *WATRS:*

(a) *10 minutes* provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique; and

(1) Where tracks diverge from the common point:

[a] At least *10 minutes* longitudinal separation exists at the point where the tracks diverge; and

[b] At least *5 minutes* longitudinal separation will exist where the minimum lateral separation is achieved; and

[c] At least the minimum lateral separation will be achieved at or before the next significant point or, if not, within *90 minutes* of the time the second aircraft passes the common point or is within 600 NM of the common point, whichever is estimated to occur first;

(2) If the aircraft have not reported over a common point, it is possible to ensure, by radar or other approved means, that the appropriate time interval will exist at the common point from which they either follow the same track or continuously diverging tracks;

(b) *Between 9 and 5 minutes*, provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique; and

(1) It is possible to ensure by radar or other approved means, that the required time interval exists and will exist at the common point from which they either follow the same track or continuously diverging tracks; and

(2) The preceding aircraft is maintaining a greater Mach number than the following aircraft in accordance with the following:

[a] *9 minutes*, if the preceding aircraft is Mach 0.02 faster than the following aircraft;

[b] *8 minutes*, if the preceding aircraft is Mach 0.03 faster than the following aircraft;

[c] *7 minutes*, if the preceding aircraft is Mach 0.04 faster than the following aircraft;

[d] *6 minutes*, if the preceding aircraft is Mach 0.05 faster than the following aircraft;

[e] *5 minutes*, if the preceding aircraft is Mach 0.06 faster than the following aircraft.

NOTE-
When the preceding aircraft is maintaining a greater Mach number than the following aircraft, in accordance with the above, and the aircraft will follow continuously diverging tracks so that the minimum lateral separation will be achieved by the next significant point, the requirement to have at least 5 minutes longitudinal separation where the minimum lateral separation is achieved, may be disregarded.

d. Operations outside of MNPS airspace *(subsonic flight)*: Apply the following minimum longitudinal separation:

1. *15 minutes* between turbojet aircraft, provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique.

2. Between turbojet aircraft, provided the Mach number technique is applied in accordance with para 8-3-3, Mach Number Technique, and *only* when it is possible to ensure by radar or other approved means that the required time interval exists and will exist at the common point:

(a) *10 minutes* when the preceding aircraft is at least Mach 0.03 faster than the following aircraft; or

(b) *5 minutes* when the preceding aircraft is at least Mach 0.06 faster than the following aircraft.

3. *20 minutes:*

(a) Between turbojet aircraft not covered by subparas d1 or 2; and

(b) Between other than turbojet aircraft operating along routes extending between the U.S., Canada, or Bermuda and points in the Caribbean Region, or between the U.S. or Canada and Bermuda; and

4. *30 minutes* between other than turbojet aircraft except those covered in subpara 3(b) above.

8-7-4. LATERAL SEPARATION

Provide lateral separation by assigning different flight paths whose widths or protected airspace do not overlap. Apply the following:

a. 60 NM or 1 degree latitude between:

1. Supersonic aircraft operating above FL 275.

2. Aircraft which meet the MNPS and which:

NOTE-
This reduced lateral separation shall not be used if track keeping capability of the aircraft has been reduced for any reason.

(a) Operate within MNPS airspace; or

(b) Are in transit to or from MNPS airspace; or

(c) Operate for part of their flight within MNPS airspace but are cleared to operate immediately above or below such airspace for a portion of their flight.

b. *90 NM or 1 and $^1/_2$ degrees* latitude between aircraft operating:

1. Within *WATRS*;

2. Between the U.S., Canada, and Bermuda;

3. West of 55° West between the U.S., Canada, or Bermuda and points in the Caribbean ICAO Region.

c. *120 NM or 2 degrees latitude* between aircraft not covered by subparas a or b above.

NOTE-
Tracks may be spaced with reference to their difference in latitude, provided that in any interval of 10 degrees of longitude the change in latitude of at least one of the tracks does not exceed 3 degrees when operating south of 58° North.